

SECTION 07530

SINGLE PLY MEMBRANE ROOFING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Thermoplastic Olefin Sheet Membrane Roofing System.
- B. Sealants and adhesives.
- C. Insulation.
- D. Membrane flashing and edging.
- E. Manufacturer's 15 year Total System Warranty.
- F. Ballast
- G. Roof traffic pads
- H. EPDM (Ballasted Only)

1.2 SUBMITTALS

- A. Product Data: Provide characteristics on membrane materials, flashing materials and insulation.

1.3 QUALITY ASSURANCE

- A. Perform Work in accordance with UL 790 Underwriters Laboratories Inc. FM 4470 Factory Mutual Engineering Corporation - Roof assembly Classification and wind uplift requirements.

1.4 ENVIRONMENTAL REQUIREMENTS

- A. Do not install membrane during inclement weather or when air temperature may fall below 40 degrees F.

1.5 WARRANTY

- A. Provide 15 year total system warranty under provisions of Section 01001 including coverage of materials and installation.

PART 2 PRODUCTS

2.1 MEMBRANE MATERIALS

- A. Manufacturers:
 - 1. Carlisle
 - 2. Stevens
 - 3. Firestone
- B. Mechanically Attached Membrane: Scrim reinforced T.P.O. 0.060" thick, 64" wide roll by appropriate length, for installation over insulated metal deck. Color to be Selected.
- C. Loose Laid Membrane: EPDM. 0.060" thick. Size to be of maximum size possible as determined by job condition. Color to be Selected.
- D. Seaming Materials: As recommended by membrane manufacturer.

NOTE: Membrane packaged for use on a public building is required to pass the ASTM, E108 assembly testing. An approved Underwriter's Laboratory assembly substitution shall be submitted five (5) working days prior to bid opening.

2.2 MEMBRANE FASTENING

- A. Mechanically Fastened:
 - 1. Disc Washers and Screws as required by manufacturer.
- B. Ballasted:
 - 1. Ballast shall be gravel (3/4" to 1 1/2" in size) water worn washed aggregate. Aggregate to be applied at a rate of 10 lbs./sq. ft. minimum.
- C. Fully Adhered:
 - 1. Bonding Adhesive as required by membrane manufacturer.

2.3 INSULATION MATERIALS

- A. Manufacturers:
 - 1. NRG or approved equal.
- B. Insulation:
 - 1. Polyisocyanurate 1 1/2" thick.

2.4 ACCESSORIES

- A. CCA Pressure Treated Wood or Fiber Cant Strip: As specified on plans.
- B. Roofing Nails Or Screws: Galvanized or non-ferrous type.

- C. All nailers and fasteners to resist a force of 75 lbs. per square foot minimum or as required by manufacturer.
- D. Sealants: As recommended by membrane manufacturer.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that surfaces and site conditions are ready to receive work; deck is clean and smooth, free of snow or ice; properly sloped.
- B. Verify roof openings, curbs, and protrusions through roof are solidly set; wood or fiber cant strips are in place.

3.2 INSULATION APPLICATION

- A. Insulation to be two 1½" layers, loose laid with staggered joints.
- B. The surface of insulation must not be ruptured.
- C. Total Insulation Thickness: 3 inches, as required to achieve an insulation R value of 21.
- D. Lay boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetrations through roof. Voids over ¼" will be filled.

3.5 MEMBRANE APPLICATION

- A. As required by membrane manufacturer.

3.6 FLASHING AND ACCESSORIES

- A. Ridget and Counter Flashing: Provide metal as required by membrane manufacturer at locations where membrane is fastened to metal, so as to provide a full system warranty.
- B. Clad Finish Fasia Metal: Provide metal as required by membrane manufacturer at locations where membrane is fastened to metal, so as to provide a full system warranty.

3.7 ROOF TRAFFIC PADS

- A. 2' x 2' traffic pads as recommended by membrane manufacturer so as not to void any warranties. Pads to be located as shown on plans.
 - 1. Provide protection sheet as required by membrane manufacturer.

END OF SECTION